A NEW TSETSE-FLY FROM THE SOUTH CAMEROONS

BY

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In the course of his investigations in the South Cameroons, during the past year, Dr. J. Hanington, a former member of the Staff of this School, made several small collections of tsetse-flies and other blood-sucking Arthropods. These he has generously presented to this Institution for the Museum collections. In the last consignment, which reached us towards the end of January of this year, were many examples of *Glossina palpalis*, R. D., *G. pallicera*, Bigot, and four specimens of a large species which, on microscopical examination of the morphological characters of the genital armatures, proved to be new and undescribed. In the letter accompanying the collection of flies, Dr. Hanington submitted a sketch-map of the districts through which he had passed, and gave the following brief account of the nature of the country in which the captures were made: 'The tsetse-flies were collected on my just completed tour of inspection N.W. over our border to Obudu. The country is hilly, forested, with many swift, shallow rivers, and full of tsetse. The large species is found only in the neighbourhood of Basho, where the ground begins to rise to the north into fly-free mountain-plateaux. The greatest number of tsetses were on the Mbilesi-Mateni Road, which runs along a wooded and rocky river valley.' The commonest species in this region would appear to be *Glossina pallicera*, of which twenty-six specimens were sent.

We append a description of the new species, and have ventured to dedicate it to Dr. Hanington, the discoverer, in recognition of his devotion to the science of tropical medicine.

Glossina haningtoni, sp. n.

A large dark-coloured species, with infuscated wings, belonging to the 'Fusca Group.' Hairs of the third antennal segment relatively short. Proboscis (palpi) 0·7 to 0·9 mm. shorter than in G. FUSCA. *Width of front in both sexes similar. Harpes of male each with three processes, the distal one angular and emarginate in front. Signum of female with height slightly exceeding width and paired crescentic folds almost continuous behind.*

Male: Length, 11 mm.; proboscis, 4 mm.; front of head, 0·75 mm.; wing, 11 mm. *Female*: Length, 11 to 12 mm.; proboscis, 4·2 mm.; front of head, 0·75 mm.; wing, 12 mm.

Male: Head with the posterior surface 'mouse-grey' (Austen), with a narrow black streak on the upper surface bordering the narrowly pale margin of the eyes. Vertex immediately behind the ocelli with a narrow black area. Front pale brown with a much paler area surrounding the ocelli. Antennal cavity greyish below, sides a little paler than the front. *Antennae* with the first two segments dark brown; the third pearly-grey, the tip of the segment moderately prominent, with the outstanding hairs forming the fringe in front from one-seventh to one-eighth the width of the segment. *Proboscis* relatively short, bulb uniformly pale buff-yellow. *Thoracic* markings very dark and pronounced, suture and ground colour forming the trident-like marking immediately in advance of the scutellum, pale ochraceous, the rest darker. *Abdomen*: Dorsum of first and second segment brown; the rest very dark, *glossy* sepia-brown, distal angles of last three segments ochraceous-grey; venter orange-ochraceous. Legs orange-ochraceous: leg I, with the femur infuscated along the dorsal half, tibia infuscated externally, tips of last two segments of tarsus dark brown or black; leg II, similar to the first but lighter in colour; leg III, with the third and fourth segments of the tarsi dusky, the last two all dark brown or blackish; all the ventral hairs dark golden. *Wings* rather strongly infuscated. *Genital armature* (fig. 1): Harpes (*h.*) with three bi-lateral processes; proximal pair long and spine-like, the first slightly shorter than the second; distal process angular, and when flattened by pressure shows a deep emargination on the distal margin (*h.* 1), but with the lower,

angular projection folded inwards the emargination almost entirely disappears (*h.* 2). Ventral chitinous sclerites long and projecting almost as far as the distal processes of the harpes. Inferior claspers (*i. c.*) normal, a few of the marginal hairs of great length. Median process with its distal edge rounded, and projecting slightly beyond the inferior claspers. Superior claspers (*s. c.*) relatively rather long, and as usual, bluntly bifid.

FIG. 1. *Glossina baningtoni*, Newstead and Evans. ♂ genital armature: *s.c.*, superior claspers; *i.c.*, inferior claspers; *i.c.l.*, two hairs from the inferior clasper, one of them malformed; *b*, harpes; *b.*1, distal process of harpe, with lower arm extended, internal aspect; *b.*2, the same with the lower arm curved inwards, external aspect.

Female: Third antennal segment pale ochraceous proximally, the distal three-fourths infuscated. Colour of legs, abdomen and plurae slightly darker than in the male. The 'black streak' on the posterior surface of the head absent. The space between the eyes (front) as in the male. *Genital armature*: External armature of the type found in *Glossina fusca* but the dorsal plates rather broad, the

width exceeding one-third of the length. Internal armature, signum of uterus (fig. 2) measuring 0·41 mm. in height and 0·38 mm. in greatest width. Median portion of signum (*m. p.*) a thin plate of the form shown in the figure, ochraceous brown behind, becoming straw-coloured towards the anterior margin; postero-lateral portions (*p. l. p.*) laminar, pale ochraceous, connected with the median plate by deep crescentic folds of black chitin (*c. c.*) These folds almost continuous posteriorly, and forming a striking feature of the signum.

SOUTH CAMEROONS: Basho, Mamfe (Ossidinge) Division, 14th December, 1921, 2 ♀♀; 2 ♂♂. Dr. J. Hanington.

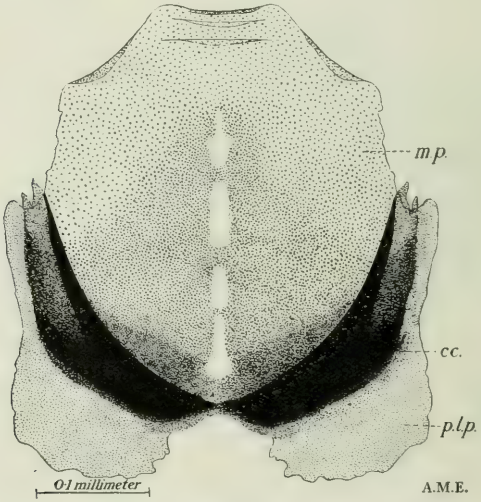

FIG. 2. *Glossina haningtoni*, Newstead and Evans. ♀ Signum: *c.c.*, crescentic fold; *m.p.*, median plate; *p.l.p.*, postero-lateral plate.

Closely related to *Glossina fusca*, but differing *externally* by the relatively much shorter palpi (proboscis), and the slightly more robust appearance. But the most marked morphological differences can be seen only in the genital armature of both sexes. A careful study of these organs at once reveals the strikingly distinctive features of this species, and its affinities with other members of the 'Fusca Group' of tsetse-flies.